## INTERNATIONALSEARCHREPORT

International application No. PCT/JP2005/001295

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl. G02B6/122, 6/12

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
Int.Cl. G02B6/122, 6/12

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Published examined utility model applications of Japan 1922-1996
Published unexamined utility model applications of Japan 1971-2005
Registered utility model specifications of Japan 1996-2005
Published registered utility model applications of Japan 1994-2005

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

JICST 'file (JOIS)

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	JP 6-242333 A (NIPPON TELEGRAPH & TELEPHONE) 1994.09.02, [0010], [0028], Fig.1,5,6 (none)	17,20 18,19
X Y	Yasuhiro Hida et al., The IEICE Transactions C-I, 1997.11, Vol.J80-C-I, No.11, p.517-524	8 1-7,9-16,18,
		19
<b>Y</b> .	US 5596661 A (LUCENT TECHNOLOGIES INC.) 1997.01.21, column 10, line 26 - line 39, figures 1B,1C & JP 8-234050 A & EP 724173 A1 & AU 4062095 A & CA 2165094 A	
P,X	Kazutaka Nara et al., Proceedings of the 2004 IEICE Electronics Society Conference 1, 2004.09.08, p.174	1-7
	IEICE Electronics Society Conference 1, 2004.09.08, p.174  er documents are listed in the continuation of Box C. See patent family annex.	1-7
* Special  "A" docume consider  "E" earlier national  "L" docume is cited special  "O" docume means  "P" docume	IEICE Electronics Society Conference 1, 2004.09.08, p.174  The action of the continuation of Box C.  I categories of cited documents:  I categories of cited document published after the inter-  I categories of cited document published after the inter-  I categories of cited document published after the inter-  I categories of cited document published after the inter-  I categories of cited document published after the inter-  I categories of cited document published after the i	ne international filing date or with the application but cited to inderlying the invention cannot be considered to involve an is taken alone the claimed invention cannot tive step when the document is other such documents, such erson skilled in the art
Further  * Special  "A" docume consider  "E" earlier national  "L" docume is cited special  "O" docume means  "P" docume than the	IEICE Electronics Society Conference 1, 2004.09.08, p.174  The documents are listed in the continuation of Box C.  I categories of cited documents:  In categories of cited documents:  I categories of cited document published after the inter-  I categories of cited document published after the inter-  I categori	ne international filing date of the internation but cited to inderlying the invention cannot be considered to involve are is taken alone the claimed invention cannot the claimed invention cannot the claimed invention cannot the step when the document is other such documents, such consolidation skilled in the art ent family
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Further  * Special  "A" docume consider  "E" earlier nations  "L" docume is cited special  "O" docume means  "P" docume than the constant than the constant the c	IEICE Electronics Society Conference 1, 2004.09.08, p.174  The documents are listed in the continuation of Box C.  I categories of cited documents:  The ent defining the general state of the art which is not exceed to be of particular relevance application or patent but published on or after the interaction of the ent which may throw doubts on priority claim(s) or which it to establish the publication date of another citation or other reason (as specified)  The ent published prior to the international filing date but later actual completion of the international search  The patent family annex.  The patent family annex.  The priority date and not in conflict to priority date and not in conflict to understand the principle or theory understand	ne international filing date of the internation but cited to inderlying the invention the claimed invention cannot be considered to involve as is taken alone the claimed invention cannot the claimed invention cannot investe when the document is other such documents, such conson skilled in the art ent family